

Message Text

SECRET

PAGE 01 STATE 221419
ORIGIN EUR-12

INFO OCT-01 ISO-00 ICA-11 PM-05 DODE-00 L-03 SIG-03
SP-02 NSCE-00 ACDA-12 SS-15 MCE-00 CIAE-00 INR-10
NSAE-00 DOE-15 SOE-02 NRC-05 SSO-00 INRE-00
ICAE-00 SAS-02 /098 R

DRAFTED BY EUR/RPM:GROBERTS:MEM
APPROVED BY EUR/RPM:SJLEDOGAR
EUR/WE:EBEIGEL L/PM:MMATHESON
EUR/NE:DWOOLFLEY NSC:JTHOMSON (SUBS
EUR/SOV:KBROWN PA/PRESS:MBADER
EUR/CE:WWOESSNER
EUR/P:WGEHRON
PM:DGOMP RT- ACDA/WEC:COL. STAPLE
OSD/ISA:WSLOCOMBE
CA:DPENDERGRAST (SUBS)

-----035811 310312Z /61

O P 302351Z AUG 78
FM SECSTATE WASHDC
TO AMEMBASSY BONN IMMEDIATE
AMEMBASSY LONDON IMMEDIATE
AMEMBASSY ROME IMMEDIATE
INFO ALL NATO CAPITALS PRIORITY
AMEMBASSY MOSCOW PRIORITY
USNMR SHAPE BELGIUM PRIORITY
USCINCEUR VAIHINGEN GE PRIORITY
USAFE RAMSTEIN GERMANY PRIORITY
USDOCOSOUTH PRIORITY

S E C R E T STATE 221419

E.O. 11652:GDS

TAGS: NATO, MILI, MPOL

SUBJECT: DEPLOYMENT OF STABALLOY MUNITIONS FOR A-10
SECRET

SECRET

PAGE 02 STATE 221419

AIRCRAFT
REF: 221420
SUMMARY: FACT SHEET, POTENTIAL Q'S AND A'S AND PROPOSED
NEWS RELEASE BELOW ARE FOR EMBASSY INFORMATION AND USE
IN DISCUSSING STABALLOY DEPLOYMENTS WITH HOST GOVERNMENTS
AND SHOULD NOT REPEAT NOT BE COMMUNICATED TO PRESS OR
PUBLIC. DEPARTMENT AND OSD ARE CURRENTLY DRAFTING

PUBLIC AFFAIRS GUIDANCE WHICH WILL BE FURTHER REFINED
AS A RESULT OF EMBASSY DISCUSSIONS WITH HOST GOVERNMENTS
(SEE SEPTTEL).

I. FACT SHEET

BEGIN TEXT.

STABALLOY IS THE NAME GIVEN TO METAL ALLOYS MADE
PRIMARILY OF DEPLETED URANIUM COMBINED WITH OTHER
METALS TO GIVE THE DESIRED CHARACTERISTICS.

DEPLETED URANIUM (DU) IS THAT PORTION OF THE METAL
URANIUM WHICH REMAINS AFTER THE VALUABLE U-235 ISOTOPE
HAS BEEN EXTRACTED TO MAKE NUCLEAR FUEL RODS OR PRODUCTS
FOR NUCLEAR WEAPONS. DU, WHICH CONSISTS ALMOST
ENTIRELY OF THE MORE COMMON URANIUM ISOTOPE KNOWN AS
U-238, CANNOT SUSTAIN A NUCLEAR CHAIN REACTION.

SINCE THE UNITED STATES BEGAN PROCESSING NATURAL
URANIUM DURING WORLD WAR II, OVER 200,000 TONS
OF DEPLETED URANIUM HAS ACCUMULATED IN VARIOUS
STORAGE SITES.

THE DEPARTMENT OF DEFENSE FIRST BECAME INTERESTED IN
DEPLETED URANIUM IN 1964 WHEN RESEARCH WAS BEING CON-
SECRET

SECRET

PAGE 03 STATE 221419

DUCTED ON ARMOR AND ARMOR PENETRATORS. ALLOYS CONTAINING
DU WERE FOUND TO BE THE MOST EFFECTIVE FOR PIERCING
ARMOR. STEEL, NICKEL AND LEAD ALL HAVE DENSITIES TOO
LOW TO BE EFFECTIVE PENETRATORS. TUNGSTEN COMES THE
CLOSEST, BUT IS STILL NOT AS GOOD A PENETRATOR AS
STABALLOY. IN ADDITION, THERE ARE NO NATIVE SOURCES
OF TUNGSTEN IN THE UNITED STATES, AND RAW MATERIAL AND
FABRICATION COSTS ARE HIGHER.

BECAUSE OF ITS HIGH DENSITY, DU IS USED IN MACHINE TOOL
BORING BARS, OIL WELL COLLARS AND IN SUCH DELICATE
INSTRUMENTS AS GYROSCOPES (ROTOR ASSEMBLIES). THE METAL
IS ALSO USED AS COUNTERWEIGHTS IN AIRCRAFT. (FOR
INSTANCE, SOME 747 CIVILIAN AIRLINERS USE DU IN WING
COUNTERWEIGHTS.) IT HAS EVEN FOUND APPLICATION IN THE
COLORING AGENTS USED IN CERAMICS. ONE OF THE MOST
IMPORTANT USES OF DU IS AS A SHIELDING MATERIAL IN
CONTAINERS IN WHICH HIGHLY RADIOACTIVE MATERIALS LIKE
COBALT 60 ARE STORED AND USED.

THE STABALLOY MUNITION FOR USE IN THE A-10 AIRCRAFT
CONSTITUTES NO SIGNIFICANT RADIOLOGICAL HAZARD. THE

U.S. AIR FORCE SURGEON GENERAL HAS DETERMINED THAT THE SURFACE EXPOSURE RATE OF A STABALLOY ROUND IS ONLY 0.2 MILLIROENTGEN PER HOUR, MEASURED THROUGH 7 MILLIGRAMS PER CENTIMETER SQUARE. THE US OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION HAS ESTABLISHED AN ACCEPTABLE DOSE RATE OF 18.75 REMS PER 3 MONTHS FOR HANDS AND 1.25 REMS PER 3 MONTHS FOR THE HEAD AND TRUNK. BASED ON THESE FIGURES, A PERSON HOLDING A ROUND IN HIS HAND 24 HOURS A DAY FOR 3 MONTHS WOULD RECEIVE ONLY 2.3 PERCENT OF THE ALLOWABLE EXPOSURE.

BECAUSE OF THE SHORT EFFECTIVE RANGE OF THE RADIATION, INCREASING THE NUMBER OF ROUNDS TO WHICH A PERSON IS EXPOSED WILL NOT SIGNIFICANTLY INCREASE THE DOSAGE
SECRET

SECRET

PAGE 04 STATE 221419

UNLESS HE WERE EXTREMELY CLOSE TO ALL OF THEM. BECAUSE OF THIS LOW EXPOSURE, NEITHER PROTECTIVE GARMENTS NOR SHIELDING IS REQUIRED DURING HANDLING OF THE MUNITIONS.

DUE TO THEIR COST, THE STABALLOY ROUNDS WILL NOT BE USED FOR TRAINING OR TARGET PRACTICE. THEY ARE INTENDED FOR USE ONLY IN ACTUAL COMBAT.

THE U.S. NAVY PLANS TO USE A 20MM STABALLOY ROUND IN ITS PHALANX GUN SYSTEM, AND THE U.S. ARMY IS CONSIDERING

STABALLOY FOR POSSIBLE USE IN ITS 105MM TANK ROUND.

END TEXT.

II. POTENTIAL QUESTIONS AND ANSWERS

BEGIN TEXT

1. Q: HOW MUCH DEPLETED URANIUM IS IN STABALLOY?

A: STABALLOY IS 99.25 PERCENT DEPLETED URANIUM, 0.75 TITANIUM.

2. Q: WHAT IS DEPLETED URANIUM?

A: DEPLETED URANIUM (DU) IS A BYPRODUCT OF THE ENRICHMENT PROCESS THROUGH WHICH MATERIAL USED FOR REACTOR FUEL AND NUCLEAR WEAPONS IS REMOVED FROM URANIUM. DU IS A HEAVY METAL USED AS COUNTERWEIGHTS IN SOME MILITARY AND COMMERCIAL AIRCRAFT. IT IS ALSO USED AS A SHIELDING MATERIAL IN CONTAINERS IN WHICH RADIOACTIVE MATERIALS SUCH AS COBALT ARE STORED AND
SECRET

SECRET

PAGE 05 STATE 221419

USED. IT PROTECTS PEOPLE CARRYING SUCH CONTAINERS BY SCREENING THEM FROM THE RADIATION THAT WOULD EMANATE FROM THE RADIOACTIVE MATERIAL WITHIN THE CONTAINER.

3. Q: IS STABALLOY RADIOACTIVE?

A: STABALLOY CONTAINS URANIUM AND URANIUM IN ALL FORMS IS RADIOACTIVE -- AS AN ORE IN ITS NATURAL STATE, AS A REFINED METAL, AS A MACHINED ARMOR PENETRATOR, AS FRAGMENTS REMAINING AFTER IMPACT, OR AS AN OXIDE PRODUCED ON BURNING.

THE DU COMPONENT OF STABALLOY IS PRODUCED AS A BY-PRODUCT OF THE GASEOUS DIFFUSION PROCESS THROUGH WHICH URANIUM METAL CONTAINING A HIGHER CONTENT OF THE U-235 ISOTOPE (ENRICHED URANIUM) IS PRODUCED FROM NATURAL URANIUM. (NATURAL URANIUM METAL CONTAINS THREE ISOTOPES -- U-234, U-235 AND U-238 -- BUT HAS ONLY 0.7 PERCENT OF U-235 AND .005 PERCENT OF U-234.) THUS, DU IS THE RESIDUE OF THIS PROCESS, WHEREBY ONLY A PORTION OF THE ORIGINAL U-235 AND U-234 CONTENT REMAINS. DURING THE REFINING AND ENRICHMENT PROCESS, THE RADIOACTIVE DECAY PRODUCTS (DAUGHTERS) OF THE URANIUM ISOTOPES ARE REMOVED FROM THE DU. BECAUSE OF THE LONG PHYSICAL HALF-LIFE (4.5 BILLION YEARS) OF U-238, THERE WILL BE NO SIGNIFICANT BUILDUP OF DAUGHTER PRODUCTS IN DU DURING THE TIME-FRAME UNDER CONSIDERATION.

4. Q: HOW RADIOACTIVE IS DU?

A: THE ACTIVITY OF A RADIOACTIVE SOURCE IS A MEASURABLE PROPERTY PROPORTIONAL TO THE RATE AT WHICH THE SOURCE DECAYS (NUMBER OF NUCLEAR DISINTEGRATIONS PER UNIT TIME). THE UNIT USED TO EXPRESS ACTIVITY IS THE CURIE (CI). A CURIE IS DEFINED AS THE QUANTITY OF ANY RADIOACTIVE NUCLIDE IN WHICH THE NUMBER OF DIS-

SECRET

SECRET

PAGE 06 STATE 221419

INTEGRATIONS PER SECOND IS 37 BILLION. THE US NUCLEAR REGULATORY COMMISSION (NRC) GIVES THE DEFINITION OF A CURIE OF NATURAL URANIUM AS THE SUM OF THE FOLLOWING ACTIVITIES:

37 BILLION DIS/SEC FROM U-238

37 BILLION DIS/SEC FROM U-234

0.9 BILLION DIS/SEC FROM U-235

THUS, ONE CURIE OF NATURAL URANIUM CORRESPONDS TO 74.9 BILLION DIS/SEC. THIS CURIE REFERS TO JUST THE THREE RADIONUCLIDES U-234, U-235 AND U-238, AND DOES NOT CONSIDER THE CONTRIBUTIONS TO ACTIVITY FROM DECAY PRODUCTS (DAUGHTERS) WHICH ARE ALSO RADIOACTIVE. APPROXIMATELY FOUR METRIC TONS OF STABALLOY YIELDS ONE CURIE. THIS IS A VERY LOW ACTIVITY -- TWO GRAMS OF RADIUM YIELDS APPROXIMATELY THE SAME ACTIVITY.

ANOTHER COMPARISON CAN BE MADE USING A TERM CALLED THE "SPECIFIC ACTIVITY". THIS IS THE NUMBER OF CURIES IN A GRAM OF A RADIOISOTOPE. THE SPECIFIC ACTIVITY OF U-238, THE MAJOR ISOTOPE OF DU, IS 3.33 TIMES 10 TO THE MINUS 7 CURIES PER GRAM (C:/S) -- NOT VERY RADIOACTIVE BY COMPARISON TO OTHER COMMONLY USED RADIOACTIVE MATERIALS.

5. Q: WHAT ARE THE HEALTH RISKS INVOLVED IN HANDLING STABALLOY?

A: HEALTH RISKS FROM HANDLING STABALLOY ARE LOW, BUT DO EXIST. THEY ARE OF TWO KINDS -- RADIOLOGICAL AND CHEMICAL TOXICITY. THE DEGREE OF RISK DEPENDS UPON THE CHEMICAL FORM; THAT IS, WHETHER IT IS SOLUBLE
SECRET

SECRET

PAGE 07 STATE 221419

OR INSOLUBLE.

O SOLUBLE. CURRENT EXPOSURE LIMITS FOR SOLUBLE URANIUM COMPOUNDS ARE BASED ON HEAVY METAL CHEMICAL TOXICITY. INGESTING SOLUBLE URANIUM COMPOUNDS RESULTS IN CHEMICAL DAMAGE TO THE KIDNEYS -- AND NOT RADIATION DAMAGE TO BODY TISSUES. SOLUBLE URANIUM COMPOUNDS ARE RAPIDLY EXCRETED, AND ARE CONSIDERED LESS TOXIC THAN LEAD OR OTHER HEAVY METALS. THE PRESENT URANIUM CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (UCGIH) THRESHOLD LIMIT VALUES (TLV) FOR WORKERS FOR EXPOSURE TO URANIUM IS 0.2MG/CUBIC METER. THE TLV FOR LEAD IS 0.15MG/CUBIC METER. THE UCGIH TLV'S HAVE BEEN ESTABLISHED BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AS NATIONAL EXPOSURE LIMITS FOR U.S. WORKERS.

O INSOLUBLE. INSOLUBLE URANIUM COMPOUNDS DO NOT POSE A CHEMICAL TOXIC HAZARD. LARGE DOSES OF INSOLUBLE COMPOUNDS ARE ONLY SLIGHTLY TOXIC TO THE KIDNEYS. INHALATION OF INSOLUBLE URANIUM COMPOUNDS LIKE URANIUM OXIDE RESULTS IN LONG-TERM RETENTION IN THE LUNGS AND

ASSOCIATED LYMPH NODES. PULMONARY NEOPLASMA DEVELOP FROM HIGH EXPOSURES (ABOVE TLV) FOR LONG EXPOSURE PERIODS. INSOLUBLE URANIUM COMPOUNDS ARE THEREFORE CONSIDERED AS LOW-LEVEL RADIATION HAZARDS BY THE INTERNATIONAL COMMISSION OF RADIOLOGICAL PROTECTION (ICRP).

THE MUCH-PUBLICIZED LUNG CANCERS IN URANIUM MINERS ARE NOT ATTRIBUTABLE TO URANIUM EXPOSURES. THE URANIUM EXPOSURES IN THESE MINERS ARE MINIMAL BECAUSE URANIUM ORE MAY CONTAIN ONLY A PERCENT OR LESS OF URANIUM. THE LUNG CANCERS HAVE BEEN ATTRIBUTED TO THE INHALATION OF THE RADON IN THE MINE AIR AND TO THE SUBSEQUENT DISPOSITION OF THE RADON DAUGHTERS IN THE LUNG TISSUES. THE RADIATION FROM THE DECAY OF THIS SERIES OF RADIO-SECRET

SECRET

PAGE 08 STATE 221419

NUCLIDES (RADIUM SERIES) IS BELIEVED TO INITIATE BRONCHIAL CANCERS.

OBSERVATIONS OF WORKMEN EXPOSED OCCUPATIONALLY TO AIR CONCENTRATION OF URANIUM EVEN SUBSTANTIALLY GREATER THAN THE MAXIMUM ALLOWABLE CONCENTRATION NOW PERMITTED BY THE NRC HAVE FAILED TO SHOW ANY EVIDENCE OF URANIUM INJURY EITHER FROM RADIATION EXPOSURE TO THE LUNG OR FROM THE TOXIC CHEMICAL EFFECT ON THE KIDNEY FROM URANIUM CARRIED BY THE BLOOD. THESE OBSERVATIONS INCLUDE MEN EXPOSED DURING A 20-YEAR PERIOD.

THE STABALLOY CONTAINED IN THE 30MM ROUND IS A SOLID METAL ALLOY AND IS ENCASED IN AN ALUMINUM SHELL WITH A STEEL JACKET. IT THEREFORE CANNOT BE INGESTED OR INHALED DURING HANDLING. THE ALUMINUM AND STEEL CASING EFFECTIVELY SHIELDS THE BETA-EMITTED RADIATION FROM THE PENETRATOR SO THAT THE ALUMINUM SURFACE EXPOSURE RATE OF GAMMA RAYS IS ONLY 0.2 MILLIROENTGEN (MR) PER HOUR MEASURED THROUGH 7 MILLIGRAM PER SQUARE CENTIMETER (HG/SPARE CENTIMETER).

6. Q: WHAT ARE THE HEALTH RISKS INVOLVED IN MANUFACTURING STABALLOY?

A: ALL MANUFACTURING IS DONE IN THE US IN ACCORDANCE WITH LICENSES ISSUED BY THE NRC. PROTECTIVE EQUIPMENT IS USED TO INSURE WORKERS ARE NOT EXPOSED ABOVE THE TLV OR CURRENT US RADIATION EXPOSURE LIMITS.

7. Q: IS STABALLOY A RADIOLOGICAL HAZARD IN TERMS OF US HEALTH STANDARDS?

SECRET

SECRET

PAGE 09 STATE 221419

A: THE SURFACE EXPOSURE RATE OF A STABALLOY ROUND MEASURED THROUGH 7 MILLIGRAMS PER CENTIMETER SQUARED IS ONLY 0.2 MILLIROENTGEN PER HOUR. THE US OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION HAS ESTABLISHED AN ALLOWABLE WORKER EXPOSURE LIMIT OF 18.75 REMS PER 3 MONTHS FOR HANDS AND 1.25 REMS PER 3 MONTHS FOR THE HEAD AND TRUNK. THIS EQUATES TO 75 REMS AND 5 REMS RESPECTIVELY FOR A YEAR'S PERIOD. THE NRC HAS ESTABLISHED THESE SAME ANNUAL WORKER LIMITS, AND RESTRICTS NON-WORKER EXPOSURE TO ONE-TENTH THESE VALUES. BASED ON THESE FIGURES, A PERSON HOLDING A STABALLOY ROUND IN HIS HAND 24 HOURS A DAY WOULD RECEIVE ONLY 2.3 PERCENT OF THE ALLOWABLE EXPOSURE LIMIT.

THIS IS LESS THAN HALF THE ALLOWABLE RADIATION EMISSION FOR HOME TV RECEIVERS AND AIRPORT SECURITY MACHINES. THE STANDARDS SET BY THE US BUREAU OF RADIOLOGICAL HEALTH, ACTING UNDER THE RADIOACTIVE CONTROL FOR HEALTH AND SAFETY ACT OF 1968, LIMIT RADIATION EMISSIONS FROM HOME TV RECEIVERS AND CABINET X-RAY SYSTEMS USED FOR AIRPORT BAGGAGE INSPECTION SYSTEMS TO 0.5 MILLIREMS PER HOUR AT 5 CENTIMETERS FROM THE SURFACE. THESE DEVICES, BY COMPARISON WITH THE STABALLOY ROUND, ARE FAR MORE ACCESSIBLE AND MORE LIKELY TO PRODUCE EXPOSURE TO HUMAN BEINGS.

8. Q: COULD STABALLOY PRODUCE CANCER?

A: THE CANCER-PRODUCING POTENTIAL OF STABALLOY IN MAN IS NOT FULLY KNOWN. NEOPLASMS HAVE BEEN OBSERVED IN THE LUNGS OF LABORATORY ANIMALS, BUT ONLY AFTER EXCESSIVE EXPOSURES (5MG U/CUBIC METER) TO URANIUM OXIDE DUST FOR FIVE YEARS. SOME SARCOMAS HAVE BEEN PRODUCED IN RATS FOLLOWING PACKING OF FINELY GROUND URANIUM METAL INTO THE BONE MARROW CAVITY. HOWEVER, STABALLOY WORKERS HAVE NOT BEEN REPORTED AS HAVING AN INCREASED INCIDENCE

SECRET

SECRET

PAGE 10 STATE 221419

OF CANCERS OVER THE GENERAL POPULATION OF THE US DESPITE DECADES OF EXPERIENCE IN INDUSTRY.

9. Q: WHAT SCIENTIFIC AUTHORITIES ARE YOU RELYING ON IN THESE ANSWERS?

A: THE INTERNATIONAL COMMISSION IN RADIOLOGICAL

PROTECTION, THE NATIONAL COUNCIL ON RADIOLOGICAL
PROTECTION, THE US NUCLEAR REGULATORY COMMISSION, AND

HE BUREAU OF RADIOLOGICAL HEALTH (DEPT. HEW).

10. Q: WHAT ARE THE RESIDUAL HEALTH PROBLEMS CONNECTED
WITH ITS RADIOACTIVITY THAT MIGHT RESULT FROM ITS
WARTIME USE?

A: NO SIGNIFICANT HEALTH PROBLEMS ASSOCIATED WITH
THE RADIOACTIVE PROPERTIES OF STABALLOY PENETRATORS ARE
FORESEEN FROM WARTIME USE. AFTER THE FIGHTING, THE
CIVILIAN POPULATION WILL FACE A HIGHER RISK FROM
UNEXPLODED MUNITIONS AND OTHER RESIDUALS FROM MILITARY
ACTIONS. LIMITED AND RECOVERABLE LAND CONTAMINATION
COULD OCCUR FROM DU AS DISCUSSED ABOVE. A CIRCUMSTANCE
OF ALL STABALLOY PENETRATORS CARRIED BY AN A-10 AIRCRAFT
BEING DEPOSITED IN THE SMALLEST POND CAPABLE OF SUPPORTING
FISH (1000 SQUARE METER AREA, WITH 1500 CUBIC METER
WATER) AND ASSUMING ALL PENETRATORS EXPOSED DIRECTLY
TO THE WATER WOULD RESULT, AFTER 100 YEARS, IN A
CONCENTRATION OF URANIUM LESS THAN THE MAXIMUM ALLOWABLE
CONCENTRATION ESTABLISHED BY THE NRC IN US TITLE 10 CFR,
PART 20 (APPROXIMATELY 8.34×10^{-7} UCI/CUBIC CENTIMETERS VERSUS 2×10^{-5}
UCI/CUBIC CENTIMETERS). IN OTHER WORDS THE POND WOULD
SECRET

SECRET

PAGE 11 STATE 221419

REMAIN USEABLE BY HUMANS.

11. Q: IS STABALLOY A RADIOLOGICAL WEAPON?

A: NO, ITS EFFECT COMES FROM THE IMPACT REPEAT
IMPACT OF THE PENETRATOR, NOT FROM ANY RADIOACTIVE
PROPERTY OF THE ROUND.

12. Q: ACCORDING TO METAL EXPERTS, TUNGSTEN IS HARDER
THAN DEPLETED URANIUM. IF THAT'S SO, WHY ISN'T IT A
BETTER PENETRATOR THAN STABALLOY?

A: TUNGSTEN IS HARDER, BUT WHEN USED WITH NECESSARY
ALLOYS, IT IS DIFFICULT TO WORK WITH AND DURING ACTUAL
LIVE FIRE TESTS HAS NOT PROVEN TO BE AS EFFECTIVE. IN
ADDITION, RAW MATERIAL AND FABRICATION COSTS ARE HIGHER.

END TEXT.

III. PROPOSED NEWS RELEASE

BEGIN TEXT

THE UNITED STATES AIR FORCE WILL SOON BEGIN

PREPOSITIONING SPARE PARTS, EQUIPMENT AND AMMUNITION IN THE UNITED KINGDOM AND THE FEDERAL REPUBLIC OF GERMANY IN ANTICIPATION OF THE FIRST BASING OF A-10 AIRCRAFT OUTSIDE THE UNITED STATES. ADVANCE PREPARATION IS NECESSARY PRIOR TO THE ARRIVAL OF THE NEW AIRCRAFT IN EUROPE.

THE BASING OF THE A-10 IN EUROPE WILL GREATLY INCREASE THE POTENTIAL EFFECTIVENESS OF NATO AIRPOWER AGAINST WARSAW PACT GROUND AND ARMORED FORCES. THE A-10 IS DESIGNED FOR CLOSE-AIR SUPPORT AND ANTI-ARMOR OPERATIONS. IT IS ABLE TO MANEUVER UNDER THE LOW CLOUD CEILINGS

SECRET

SECRET

PAGE 12 STATE 221419

COMMON IN EUROPE, USE TERRAIN AND MANEUVERABILITY FOR PROTECTION, AND REMAIN ON TARGET FOR EXTENDED PERIODS. THE A-10 CAN CARRY A COMBAT LOAD OF BOMBS AND AIR-TO-SURFACE MISSILES, PLUS THE 30MM GAU-8 GUN WHICH CAN FIRE UP TO 4,000 ROUNDS PER MINUTE. THIS INTERNALLY-MOUNTED GATLING GUN, THE MAIN REASON FOR THE AIRCRAFT'S EFFECTIVENESS AGAINST ARMORED VEHICLES, IS THE FIRST OPERATIONAL AIRCRAFT TO USE A STABALLOY

ROUND. STABALLOY IS A METAL ALLOY MADE OF DEPLETED URANIUM COMBINED WITH OTHER METALS TO GIVE IT THE DESIRED ARMOR-PIERCING CHARACTERISTICS. DEPLETED URANIUM (DU) WHICH IS USED IN SOME COMMERCIAL 747 AIRCRAFT FOR COUNTER-WEIGHTS, IN SHIELDING FOR RADIOACTIVE MATERIALS, AND IN OIL WELL COLLARS AND MACHINE TOOLS, IS ONE OF THE BYPRODUCTS FROM PROCESSING OF NATURAL URANIUM. STABALLOY'S EXTREME DENSITY AND WEIGHT (HIGHER THAN LEAD) ARE ESSENTIAL TO THE 30MM ROUND, WHICH OPERATES ON THE KINETIC ENERGY PRINCIPLE OF PROPELLING AN EXTREMELY DENSE MATERIAL AT A HIGH VELOCITY, STABALLOY AS CONTAINED IN THE A-10 MUNITION, PRESENTS NO SIGNIFICANT RADIATION HAZARD AND REQUIRES NO SPECIAL HANDLING OR SHIELDING.

AS ANNOUNCED EARLIER THIS YEAR, THE A-10 WILL BE BASED IN THE UNITED KINGDOM AT RAF STATIONS BENTWATERS AND WOODBRIDGE, AND WILL BE REPLACING THE F-4'S CURRENTLY ASSIGNED TO THE 81ST TACTICAL FIGHTER WING. ALTHOUGH THEY WILL BE PERMANENTLY BASED IN THE UK, SOME A-10S WILL ROUTINELY OPERATE FROM A FORWARD BASE AT SEMBACH AB, FRG. OTHER FORWARD BASES ON THE CONTINENT WILL BE DESIGNATED LATER.

PEACETIME DEPLOYMENT OF UP TO EIGHT A-10S IS PLANNED

SECRET

SECRET

PAGE 13 STATE 221419

FOR EACH FORWARD OPERATING LOCATION, WITH PERIODIC
ROTATION OF THE AIRCRAFT BACK TO HOME BASES IN THE UK.

END TEXT.

FYI: SECOND IN SERIES OF THREE CABLES. PROPOSED
PUBLIC AFFAIRS GUIDANCE, REFINED IN LIGHT OF ACTION
ADDRESSEES' DISCUSSIONS WITH HOST GOVERNMENTS, WILL
CONSTITUTE THE THIRD ELEMENT OF THIS SERIES. END FYI.

CHRISTOPHER

SECRET

NNN

Message Attributes

Automatic Decaptioning: X
Capture Date: 01 jan 1994
Channel Indicators: n/a
Current Classification: UNCLASSIFIED
Concepts: URANIUM, BRIEFING MATERIALS, NUCLEAR FUELS, METALLOIDS, STABALLOY
Control Number: n/a
Copy: SINGLE
Draft Date: 30 aug 1978
Decaption Date: 01 jan 1960
Decaption Note:
Disposition Action: RELEASED
Disposition Approved on Date:
Disposition Case Number: n/a
Disposition Comment: 25 YEAR REVIEW
Disposition Date: 20 Mar 2014
Disposition Event:
Disposition History: n/a
Disposition Reason:
Disposition Remarks:
Document Number: 1978STATE221419
Document Source: CORE
Document Unique ID: 00
Drafter: GROBERTS:MEM
Enclosure: n/a
Executive Order: GS
Errors: N/A
Expiration:
Film Number: D780355-0168
Format: TEL
From: STATE
Handling Restrictions: n/a
Image Path:
ISecure: 1
Legacy Key: link1978/newtext/t1978086/aaaaaeyj.tel
Line Count: 510
Litigation Code IDs:
Litigation Codes:
Litigation History:
Locator: TEXT ON-LINE, ON MICROFILM
Message ID: 86eef662-c288-dd11-92da-001cc4696bcc
Office: ORIGIN EUR
Original Classification: SECRET
Original Handling Restrictions: n/a
Original Previous Classification: n/a
Original Previous Handling Restrictions: n/a
Page Count: 10
Previous Channel Indicators: n/a
Previous Classification: SECRET
Previous Handling Restrictions: n/a
Reference: n/a
Retention: 0
Review Action: RELEASED, APPROVED
Review Content Flags:
Review Date: 20 may 2005
Review Event:
Review Exemptions: n/a
Review Media Identifier:
Review Release Date: n/a
Review Release Event: n/a
Review Transfer Date:
Review Withdrawn Fields: n/a
SAS ID: 1725964
Secure: OPEN
Status: NATIVE
Subject: DEPLOYMENT OF STABALLOY MUNITIONS FOR A-10 SECRET SECRET
TAGS: MILI, MPOL, NATO
To: BONN LONDON MULTIPLE
Type: TE
vdkgvwkey: odb://SAS/SAS.dbo.SAS_Docs/86eef662-c288-dd11-92da-001cc4696bcc
Review Markings:
Sheryl P. Walter
Declassified/Released
US Department of State
EO Systematic Review
20 Mar 2014
Markings: Sheryl P. Walter Declassified/Released US Department of State EO Systematic Review 20 Mar 2014